Figure 1 Improvised irrigant delivery system. The Bard Flip-Flo® Catheter Valve in the 'on' position attached to the irrigation channel of the 3-way catheter. The flexible latex tubing of the valve fits snugly over the fixed Luer lock of the blood administration set, producing a watertight seal.

improvised system for delivering temporary bladder irrigation, utilising readily available components and the novel modification of a catheter valve.

TECHNIQUE

As shown in Figure 1, the tapered plastic spigot of the bladder catheter valve (Bard Flip-Flo® Catheter Valve, CE0086) inserts into the irrigation channel of a 3-way catheter. The flexible end is attached over the Luer lock of a standard blood administration set, attached to a bag of normal saline. Simple bench-top studies using 1 litre of normal saline at a height of 1.8 m, blood administration tubing, catheter valve and a 20-F Simplast Foley 3-way catheter (Teleflex Medical Ltd, CE0124), resting horizontally at a height of 50 cm, have shown an average flow rate of 3.1 ml/s. Identical experiments using a 2 litre normal saline irrigation reservoir at a height of 1.8 m, a single irrigation giving set, and Simplast Foley 3-way catheter at 50 cm, have shown an average flow rate of 3.5 ml/s.

DISCUSSION

Ideally, all hospitals would stock specialist irrigation apparatus, but hospitals without on-site urological services rarely do so. The problem is particularly acute in large conurbations with a number

of hospitals where specialist services are naturally concentrated in one centre. Occasionally, situations arise where transfer of a patient requiring irrigation to a specialist centre is inadvisable. In such circumstances, the system described above may provide an acceptable means of providing temporary irrigation until such time as transfer to urology is considered safe, or specialised irrigation apparatus becomes available.

Use of an improvised sternal retractor for mediastinal parathyroidectomy through a cervical incision

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BACKGROUND

Mediastinal parathyroid adenomas are traditionally managed by open chest surgery which has associated morbidities. The advent of pre-operative localisation using a combination of ⁹⁹Tc-sestamibi scintigraphy (Fig. 1A,B) and contrast-enhanced CT scan (Fig. 1C) has allowed accurate localisation and, hence, a focused approach towards mediastinal parathyroidectomy. We describe a technique of performing mediastinal parathyroidectomy through a cervical incision using a sternal retractor.

TECHNIQUE

The supine patient is positioned with the neck extended. A standard collar incision is made between sternocleidomastoid muscles. Subplatysmal flaps are raised. Sternohyoid and sternothyroid muscles are divided low in the neck. A single arm of sternal retractor (Rultract Skyhook, Ohio, USA) is applied to the sternum to lift it upwards (Fig. 2A,B). The ratcheting system of the sternal retractor gently elevates the sternum and locks in place. This manoeuvre allows improved access and visualisation of the anterosuperior mediastinum. The cervical extension of thymus is identified, dissected free and retracted superiorly. The ectopic parathyroid adenoma when identified can be excised from the thymus or resected *en-bloc* with the thymus.

DISCUSSION

This technique avoids the need for sternotomy or thoracotomy in the excision of parathyroid adenoma. Consequently, the postoperative length of hospital stay is short. However, it must be emphasised that this technique only allows adequate exposure of the anterosuperior mediastinum, hence should not be used for ectopic parathyroid adenomas localised to other areas of the

A Early scintigram

B Delayed scintigram

C Contrast-enhanced CT scan

Figure 1 A patient in whom we successfully performed a mediastinal parathyroidectomy through the cervical approach using the sternal retractor. (A,B) Sestamibi scintigram showed an ectopic parathyroid adenoma in the superior mediastinum. (C) CT scan image showed localisation of the ectopic parathyroid adenoma to anterosuperior mediastinum. White arrow denotes the location of adenoma.

Figure 2 (A) Picture of the sternal retractor (courtesy of Rultract Inc., Ohio, USA). (B) Retractor positioning intra-operatively with view of the anterosuperior mediastinum.

mediastinum. The key to the success of this technique is accurate pre-operative localisation of the ectopic adenoma.

Percutaneous vas fixation stitch

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BACKGROUND

It is recommended that vasectomy be performed under local anaesthesia whenever possible.¹ The first step during vasectomy is to fix the vas against the scrotal skin using three-finger technique.² As the local anaesthetic is infiltrated, the resulting oedema of the scrotal tissue may loosen manual grip on vas causing it to slip. If the vas slips, its relocation causes patient discomfort and anxiety right at the outset. Oedema of scrotal tissue also makes the percutaneous application of fixation clamp difficult. We describe a simple, yet effective, technique to fix the vas using a percutaneous stitch to prevent slippage.

TECHNIQUE

After initial localisation of the vas, it is infiltrated with a local anaesthetic agent (Fig. 1A,B). A suitable suture is then passed around the vas percutaneously (Fig. 1C) which loops around the vas and helps to fix it. Once the vas is fixed, the rest of the procedure is carried out as usual (Fig. 1D,E).

Figure 1 Diagrammatic representation of the steps in the technique to fix the vas using a percutaneous stitch to prevent slippage.